ABSTRACT OF THE DISCLOSURE

The present invention relates to isolated nucleic acid molecules which encode a BEL transcription factor from potato (*Solanum tuberosum* L.) and the amino acid sequences encoded by such nucleic acid molecules. Additional aspects of the present invention relate to methods of using isolated nucleic acid molecules which encode BEL transcription factors from potato to enhance growth and to regulate flowering in plants. The present invention is also directed to a method for enhancing tuber development in a plant. This method includes transforming a tuberous plant with a DNA construct including a nucleic acid molecule encoding a BEL transcription factor or a KNOX transcription factor, and an operably linked promoter and 3' regulatory region, whereby tuber development is enhanced in the plant.

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